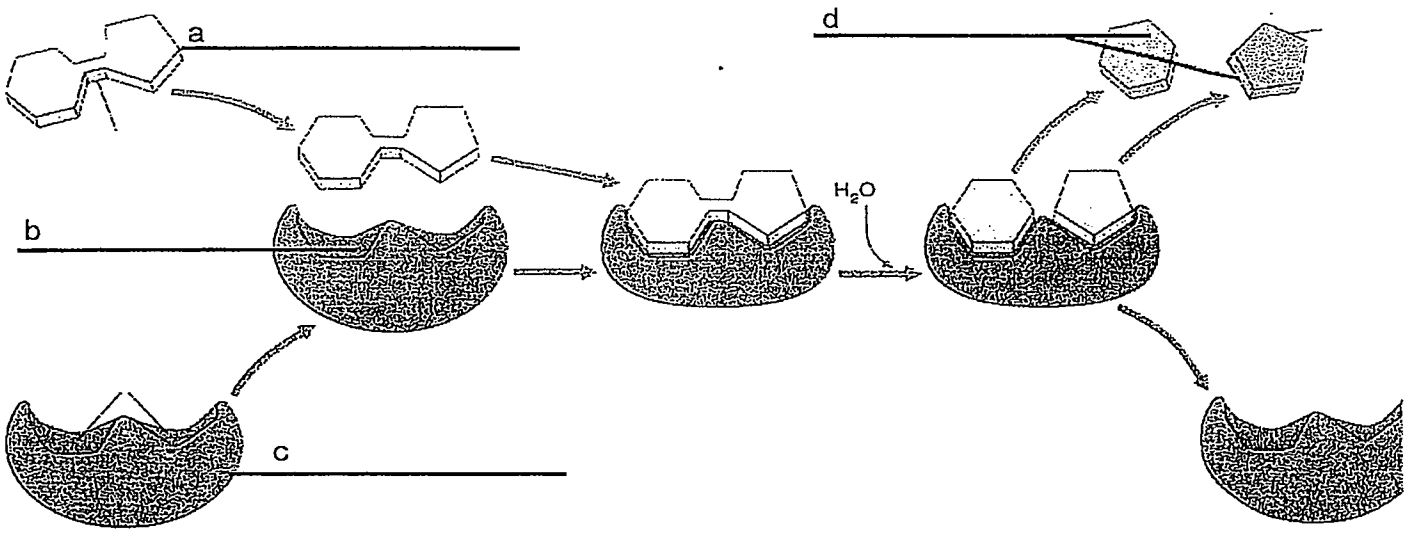
ENZYME PRACTICE

1. Label the diagram



2. Answer true of false to the following statements:

a. _____ Enzymes interact with specific substrates
b. _____ Enzymes change shape after a reaction occurs
c. _____ Enzymes speed up reactions.
d. _____ One enzyme can be used for many different types of chemical reactions.
e. _____ Enzyme reactions can be slowed or halted using inhibitors.

3. Circle the correct effect.

a. Raising the temperature slightly will [increase | decrease | not change] the rate of reaction
b. Boiling temperature will [increase | decrease | not change] the rate of reaction.
c. Changing the pH toward the optimal pH will [increase | decrease | not change] the rate of reaction.
d. Introducing a competitive inhibitor will [increase | decrease | not change] the rate of reaction.

4. Place a check mark next to the things that are expected to INCREASE the rate of an enzymatic reaction(at least for a while)

a. _____ Add more enzyme
b. _____ Add more substrate molecules
c. _____ Adjust pH to optimal level for the enzyme
d_____ Add a non competitive inhibitor
e._____ Freezing/cold temperatures

Enzyme Worksheet

After reading the information on enzymes answer the following questions:

1. What does a catalyst do? _____

_____

2. What is an enzyme? _____

_____

3. Why do enzymes generally bind to only one type of substrate? _____

_____

_____

4. How are the "lock and key" and "induced fit" models similar? _____

_____

_____

5. How are the "lock and key" and "induced fit" models different? _____

_____

_____

6. What are 3 things that can affect the way enzymes work? Explain how each thing would affect an enzyme.

   a. _____

   _____

   b. _____

   _____

   c. _____

   _____